



Air Operations Must Be *Joint*

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The advent of airpower in the twentieth century revolutionized warfare by adding a third dimension to the "traditional" battlefields on land and sea. Further, its capabilities have evolved significantly. Initially, for example, airpower functioned as a subordinate element to the Army, and in World War I its missions included little more than aerial artillery observation and communication. Today's independent Air Force and the smaller service-unique air components, however, operate in a wide variety of combat and support roles in the joint environment. The debate over airpower's role among the various armed services has been a recurring issue since the airplane demonstrated its utility as a weapon of war during the First World War. Interservice discussions have been widespread and intense, caused by the services' parochial self-interests and differing viewpoints on how to wage joint warfare. Specifically, the sea and ground services want airpower to operate under their control in direct support of the tactical and operational levels of their respective campaigns, while the Air Force wants to focus its assets on an independent air campaign against strategic targets in support of the theater campaign.¹

During the past seven decades, a variety of joint organizations tried to meet wartime requirements by establishing differing degrees of control over the services' air assets. Their efforts met with varying levels of success. After noting problems in several joint military operations in the early 1980s, Congress passed the Goldwater-Nichols Defense Reorganization Act of 1986 to reform and improve the joint war-fighting capability of the services. This law gave the regional commanders in chief (CINC) primary responsibility

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for war fighting in their respective theaters, while subordinate land, sea, and air component commanders would control the four services' components assigned to the theater. In the late 1980s, the European CINC established the joint force air component commander (JFACC) as a coordinator to organize the theater's air assets and accomplish the CINC's mission.² The Joint Chiefs of Staff (JCS) first approved this concept in Joint Publication (Pub) 26, and the other war-fighting CINCs later accepted it as a doctrinal mechanism to command and control the theater's airpower assets.³ The current concept gives the JFACC operational control over all air assets assigned or attached to the theater, along with responsibility for planning and executing air operations in support of the CINC's mission.⁴ Operations Desert Shield and Desert Storm provided the first operational, wartime exercise of the new command and control (C2) system, which proved to be the most effective system to date in commanding and controlling joint airpower.⁵ As expected with a new operating system, several questions arose, dealing with joint interoperability and service-specific concerns about the system's implementation. The lessons learned from this experience can be used to improve the current JFACC system and enhance its performance in future conflicts involving joint power projection.

The Current JFACC System

The JFACC concept codifies the Air Force's long-held premise that (1) airpower must operate under a single air commander who exercises centralized control of air assets and (2) the execution of air missions must be decentralized. Only then can the Air Force optimize airpower's unique capabilities. Airpower assets—primarily high-performance, fixed-wing attack aircraft from the Air Force, Navy, and Marine Corps—are combined under the JFACC's operational control for the planning and execution of air operations in support of the CINC's intent for the overall theater campaign. Centralized control is exercised through the processes of apportionment, allocation, and distribution.

Apportionment consists of determining and assigning the total expected air effort (in terms of percentages and/or priorities) that should be devoted to each airpower mission (e.g., counterair [CA], air interdiction [AI], close air support [CAS], strategic attack, etc.). The CINC makes the apportionment decision, based on the JFACC's recommendation on use of available theater air assets. For example, the CINC may determine that CA is his first priority and should include 50 percent of the available air assets, based on his intent for next-day operations. His second and third priorities may be AI and CAS, including 30 percent and 20 percent of the air assets, respectively. These apportionment percentages may vary throughout the operation, depending on the enemy's air, ground, and sea capabilities and phasing of the overall theater campaign plan.

After the CINC makes the apportionment decision, the JFACC and staff conduct the allocation process, which consists of translating the apportionment percentages into numbers of sorties, broken out by available aircraft type, unit, and mission. During this phase, they also perform mission planning for the available aircraft that support each airpower mission. This process results in the air tasking order (ATO), which provides

specific mission orders for each aircraft's next-day operations. After it is approved, the ATO is sent to all services for decentralized execution of the air missions.

The distribution process takes place after the allocation process is completed. That is, the JFACC "gives" CAS sorties to the land component commander (LCC) who then distributes available sorties to subordinate Army and Marine Corps elements for use in their mission planning.⁶ Apportionment, allocation, and distribution are designed to be logical and simple, but problems stemming from differing service doctrines and equipment in Desert Storm limited the JFACC's effectiveness in implementing these three processes.

The JFACC System in Desert Storm

Overall, the JFACC system succeeded in meeting mission requirements during Desert Storm. The air campaign was a major factor in forcing Iraq to withdraw from Kuwait and in keeping coalition losses to a minimum. Because Desert Storm marked the first use of the JFACC concept, however, one could expect some problems to occur. One of the most publicized criticisms concerning joint interoperability involved the JFACC's use of an Air Force-designed ATO as a mission-planning document.⁷ Faced with planning missions for hundreds of aircraft from dozens of coalition partners, the Air Force produced a daily ATO consisting of several hundred pages. A series of courier flights then delivered the ATO from JFACC headquarters in Riyadh, Saudi Arabia, to Navy carriers at sea because communications-system incompatibility between the Air Force and Navy prevented electronic transmission of the document.

JFACC planning and execution processes encountered even harsher criticisms along service-specific lines. Indeed, some JFACC planners noted that it was sometimes easier to work with coalition members from other nations than with members of the other US services.⁸ For instance, the Navy and Marine Corps complained about the JFACC system's operational philosophy and targeting. Traditionally, the Navy's carrier air groups have operated autonomously, accustomed to decentralized control, planning, and execution of their operational missions.⁹ Similarly, Marine Corps doctrine notes that the Marine Air/Ground Task Force (MAGTF) commander retains operational control over all organic assets, including high-performance, fixed-wing aircraft.¹⁰ But the JFACC system's rigidly centralized control over target selection, planning, and decentralized execution directly opposed both the informal and formal systems of the Navy and Marine Corps. The resultant turmoil had to be overcome through improvisation.¹¹ Another criticism charged that the Air Force-dominated JFACC staff allocated Air Force assets to attack more lucrative (and highly visible) targets but relegated Navy and Marine Corps aircraft to less valuable targets.¹² However, postconflict studies have shown that many Navy and Marine Corps aircraft simply lacked adequate target identification systems as well as the capability to deliver precision guided munitions (PGM) and thus were not suitable for certain targets.¹³

The major criticism of the Army and Marine Corps concerned the lack of air effort in support of ground operations in the overall theater campaign plan. Conversely, the major complaint of the Air Force senior leadership was that preparation for ground operations diverted assets from the strategic effort.¹⁴ During the air campaign's initial phases, the JFACC concentrated assets on strategic attack to wrest air superiority from Iraq and to eliminate its command, control, communications, and intelligence (C3I) facilities and nuclear, biological, and chemical (NBC) capability, in accordance with the CINC's apportionment decision. As the air campaign progressed, the CINC intended to shift the focus to interdiction sorties against Iraqi ground forces for the upcoming ground war to liberate Kuwait. However, senior JFACC staff planners diverted interdiction strikes nominated by the Army to strategic targets, an action that countered the CINC's intent for the overall campaign.¹⁵ Air Force commanders and planners felt that diverting aircraft from the strategic effort prevented the air campaign from decisively defeating Iraq without the need for a ground war.¹⁶ But Army and Marine LCCs were not convinced that airpower alone could force Iraq to withdraw from Kuwait. They felt that although the ground campaign would still be required, the JFACC did not support the "shaping" of the ground battlefield until directly pressed by the CINC.¹⁷ For example, airpower struck only one-third of over 3,067 Army-nominated ground targets in preparation for ground operations.¹⁸ At the beginning of the air campaign, the MAGTF commander withheld half of his organic, fixed-wing assets from JFACC control, saving them for his priority targets.¹⁹ Later in the air campaign when the JFACC had not allocated "sufficient assets," the MAGTF commander withdrew all of his fixed-wing aircraft from JFACC control to shape the battlefield in accordance with his intent.²⁰ Although this action solved the MAGTF's near-term problem, it defeated the purpose of using a JFACC to optimize the use of air assets. Neither does it offer long-term, workable solutions to problems with air-ground operations. We need to find better solutions, and this process begins with understanding the major doctrinal differences among land, air, and sea forces.

Doctrinal Differences

Gen Curtis LeMay noted that "at the very heart of warfare lies doctrine. It represents the central beliefs for waging war in order to achieve victory."²¹ But the four services differ in their respective war-fighting doctrines and in their perception of warfare and airpower's role in it. These differences became especially evident during Desert Storm. For example, the JFACC staff was joint in name only, since its nucleus consisted of the Ninth Air Force staff, augmented by other Air Force elements and liaison officers from the other services and nations that supplied airpower assets.²² Unsurprisingly, Air Force doctrine dominated the JFACC planning process,²³ focusing on CA operations and strategic attacks, regardless of the other services' concerns.²⁴ Airpower advocates from the time of Giulio Douhet through the present day believe that the heart of the enemy's ability to wage war (its strategic center of gravity) lies in his industrial base.²⁵ After achieving air superiority, the Air Force then launches a strategic attack aimed at destroying the enemy's industrial infrastructure and achieving decisive results without intervention by land and sea services. In essence, Air Force doctrine makes support of ground (or naval) forces a low-priority

mission for air combat units.²⁶ Thus, the JFACC staff's recommendations for aircraft apportionment to the CINC followed the dictates of Air Force doctrine, which preferred to handle operational-level ground targets with AI rather than CAS.²⁷

On the other side of the doctrinal coin, the Army, Marine Corps, and Navy see themselves as the final arbiters of armed conflict in their respective environments. To them, airpower plays only a supporting role, merely augmenting available firepower and limiting hostile fire on friendly forces. Unlike the Air Force, the advocates of land and sea power consider the enemy's strategic center of gravity to be his army and navy, respectively; thus, available airland and sea resources should concentrate on the opposing center of gravity to fulfill the campaign's objectives.²⁸ Naval and military strategists such as Carl von Clausewitz, Antoine de Jomini, Alfred Thayer Mahan, and Julian Stafford Corbett all agree that occupation of the enemy's territory offers the decisive solution to combat. This viewpoint is best summarized in the Naval War College's classic text of 1942, *Sound Military Decision*: "The final outcome [of war] is dependent . . . on ability to **isolate, occupy, or otherwise control the territory of the enemy**" (emphasis in original).²⁹ In Desert Storm, the UN and US objective of liberating Kuwait did require a land campaign entailing ejection of Iraqi forces and occupation of the land.³⁰ Such doctrinal differences over the role of airpower in support of the theater campaign plan made disputes among the services almost inevitable.

Joint Interoperability and the Need for Joint Doctrine

Many joint interoperability problems with hardware are undergoing research and development for possible solutions. The Navy and Marine Corps still need to enhance their air capability to influence the land campaign in accordance with their recently published white paper . . . *From the Sea*,³¹ which shifts the Navy's traditional focus from a blue-water, fleet-on-fleet confrontation to support of joint-force projection operations in the littoral regions of the globe. For example, the Navy and Marine Corps need more aircraft with the capability to deliver PGMs and with advanced target identification systems compatible with current Air Force systems. Each service should procure equipment—especially communications and weapons systems—that is compatible with that used by the other services. Several joint communications, electronics, and systems boards have already been established to ensure the compatibility of new common-use hardware, software, and other equipment. Increased peacetime training of Air Force, Navy, and Marine aviators in JFACC procedures will also improve operational effectiveness of the new system. Further, the ongoing joint training opportunities through the reorganized US Atlantic Command (USACOM) will improve joint interoperability by establishing common procedures and knowledge in all four services.

Many service-specific complaints are not yet solved and will remain unsolved until the four services agree on joint war-fighting doctrine. Instances of the lack of adherence to established joint doctrine, such as the Marine Corps's withholding of air assets from JFACC control, limit the amount of interoperability that can be developed among the

services. Col John A. Warden III, the architect of Desert Storm's air campaign, notes that "many of our current problems over the uses of the various Armed Services stem from a lack of coherent doctrine on how they should be used individually and *collectively* in an operational campaign to secure some strategic end" (emphasis added).³² This problem—which applies not only to joint air doctrine but also to joint war-fighting doctrine in general—is both systemic and historical and will continue as long as the services continue to operate under separate doctrines.

The Department of Defense (DOD) has several independently developed doctrines: the Army's AirLand Battle, the Navy and Marine Corps's . . . *From the Sea*, and the Air Force's global reach—global power, all dealing with the projection of joint expeditionary forces but otherwise exhibiting precious little that links them together for a common purpose. None of the current service doctrines goes far enough in supporting joint operations because none fully integrates the capabilities of the others. As noted above, Air Force doctrine minimizes support to the joint airland campaign, while Navy operating philosophy and Marine Corps doctrine oppose the centralized control of joint air efforts through the JFACC. Instead of maintaining independent (sometimes opposing) doctrines, we need to write one joint doctrine to guide the projection of joint air, land, and sea power with one "central [belief] for waging war in order to achieve victory" (to reiterate General LeMay's point) and then develop service doctrines that support joint power projection. This war-fighting joint doctrine should be developed at the new Joint Warfighting Center at Fort Monroe in Hampton, Virginia, under the guidance of the JCS³³ and should be sufficiently broad and flexible to allow each service to produce a supporting doctrine that takes advantage of its unique capabilities and characteristics. Conversely, no service should develop a doctrine that opposes the effective development and execution of joint doctrine and operations in future endeavors.

Refinements to the JFACC System

The current JFACC system is an effective mechanism for controlling joint airpower but could stand some refinements. For instance, future JFACC staffs should be truly joint, including equal representation from the four services. Gen William W. Momoyer noted that "when a headquarters that is supposed to control multiservice forces is not structured with a balanced staff, inter-service problems tend to become magnified since there is inadequate consideration of at least one service's view at the outset."³⁴ The JFACC staff—particularly the operations and planning cells—should include enough Army, Navy, and Marine Corps representatives to ensure that the concerns of each service are addressed in the apportionment and allocation processes. The staff planning processes should use established joint doctrine instead of service-specific doctrine or theories that limit the effective execution of joint air operations in-theater. In other words, JFACC staff members should not subvert the staff planning process or the CINC's allocation decision, as was the case in the Gulf War when several Air Force members of the JFACC staff used "creative diversions" to divert tactical strikes from Kuwait to strategic targets in Iraq in an attempt to validate the prewar claim that airpower can defeat enemy land forces without

using friendly land or sea forces.³⁵ On the other hand, the demands of ground commanders should not dilute the CA effort to the point of failure, unless the tactical situation on the ground dictates otherwise. The responsibility for maintaining this delicate balance between competing demands for airpower falls squarely on the shoulders of the JFACC and his or her staff. Once the CINC makes the apportionment decision, the allocation of aircraft must fulfill the CINC's original intent, and no aircraft should be diverted to other targets unless unanticipated changes in the theater situation so dictate. If diversions occur, then one should make appropriate modifications to the ATO to fulfill the CINC's apportionment decision and his or her intent for subsequent phases of the theater campaign.

Army, Marine Corps, and Navy leadership must understand the strategic, operational, and tactical roles of airpower in the theater air campaign. Because airpower is a scarce resource on the battlefield, it may not be available for every potential target. Wartime experience has shown that AI makes more effective use of limited air assets than does CAS and that higher-priority missions in accordance with the CINC's intent may limit the number of sorties providing direct mission support to ground and sea forces.³⁶ Thus, local commanders should be prepared to adjust their operational plans accordingly if planned and requested CAS sorties are not available. On the other hand, Air Force, Navy, and Marine air components need to be aware of their roles in supporting ground and sea forces on the modern battlefield. Because airpower is a tremendous force multiplier for land and sea forces, commanders should frequently use it to increase US military effectiveness and to reduce friendly casualties.

The services must develop improved joint education so their members can understand the capabilities and limitations of airpower in its strategic, operational, and tactical roles in the theater campaign. This education should cover the role of the JFACC in supporting the CINC's theater campaign plan and the way airpower can best support each phase of the campaign in the air, on land, and at sea. Planners and operators in the joint environment must learn when and how to adapt service-specific doctrine and concerns to meet the requirements of joint operations in power projection and not allow parochial interests to override the needs of the joint operation.

The first priority of joint air operations in support of the theater campaign must be CA operations to achieve air superiority because wartime experience has shown that air, land, and sea forces cannot effectively perform their missions while under air attack.³⁷ Joint US airpower has done a superb job of ensuring air superiority to support US ground and sea forces—witness the fact that these forces have not faced a hostile aerial attack since 30 June 1953, during the Korean War.³⁸ After air assets have established air superiority, the CINC can then apportion those assets among all sea, air, and land forces in-theater to meet other service and mission requirements and to ensure accomplishment of the CINC's mission. With regard to other priorities, Adm James Winnefeld notes that "the first priority [for airpower] should be the needs of the supported commander *if a decisive engagement is under way. . . .* The second priority should be the requirements of the air component commander. This order of priorities should be reversed if the supported commander is not decisively engaged or about to engage" (emphasis in original).³⁹ When ground and sea forces are not in use or not in-theater, the CA and strategic campaigns should have

priority on available assets because, as some sources argue, the JFACC is the supported commander.⁴⁰ However, after ground and sea forces are committed or intended for use in the theater campaign plan, sufficient air assets must be apportioned and allocated to meet the supported commander's AI and CAS requirements, in accordance with the CINC's intent. If time permits, subordinate air, land, and sea commanders should be informed of the apportionment and allocation decisions (along with any subsequent changes) in order to increase their understanding of the CINC's intent and campaign plans and to allow them to adjust their supporting plans accordingly.

Conclusions

The JFACC system is the most effective joint organization that DOD has devised to command and control joint air operations. Nevertheless, we must refine the system to make it more responsive to the requirements of the CINC and the subordinate commanders of all four services. Air operations must be *joint*—not merely an amalgamation of individual service efforts operating in accordance with individual service concerns and agendas. Joint operations are the primary means by which the US will project power abroad in the new world order. Indeed, Gen Henry C. Stackpole III predicted that the US will probably never witness a military operation that is neither joint nor combined.⁴¹ In the past, each service followed an independent doctrine based on its own interests. Although such doctrine allowed for some degree of overlap when the services worked together in joint operations, in the future we may not have the luxury of redundant capabilities and must make more effective use of available forces. Because joint air operations will prove invaluable to power projection in future conflicts, we must develop the joint doctrine, equipment, and procedures to support the JFACC system. Only then can we use it more effectively and efficiently to project force against hostile land-, air-, or sea-based threats.

Notes

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